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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,614	06/23/2003	Kinya Aota	503.35255V13	6832
20457	7590	11/18/2003	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-9889			EDMONDSON, LYNNE RENEE	
			ART UNIT	PAPER NUMBER
			1725	

DATE MAILED: 11/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/600,614	AOTA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Lynne Edmondson	1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 June 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All   b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet, 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet, 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1 .                      6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Double Patenting*

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-5 and 8-10 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 5, 6, 9-12, 27 and 29 of copending Application No. 10/054852. Although the conflicting claims are not identical, they are not patentably distinct from each other because both teach friction stir welding. '852 claims 1, 2, 5, 6 and 9-12 teach a friction stir welding method wherein hollow members with face plates having interlocking (grooves and projections) sections are engaged and placed in abutment and joined by insertion of a rotary tool inserted within a diameter range. This method is taught in instant claims 1-5 and 8-10 without the statement of insertion within a diameter range or range of depth of the recess. However, insertion within a diameter range is necessary to insert the tool into the overlapped portion from an outer side. The connector plate of the '852 claims is equivalent to the third plate of the 'instant claims. Although the term "hollow member"

is not used in the instant claims, parallel face plates with an orthogonal connecting member describe a hollow member in instant claim 1 or '852 claim 1. Friction stir welding occurs at the abutment, which is substantially on an extension of the center line of the thickness of the connecting (or third) plate ('852 claims 27 and 29 and instant claims 2, 4 and 9). Although there is no disclosure of reversing the first and second member, this would be required to weld both the upper and lower sections of the members as there is no indication of simultaneous welding.

It would have been obvious to one of ordinary skill in the art at the time of the invention that the structures are the same although the terminology is slightly different and that the friction welding method would be the same for interlocked members regardless of other shapes and structures present in or on the member.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

3. Claims 1-4, 6-9 and 11 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 6-11 of U.S. Patent No. 6050474. Although the conflicting claims are not identical, they are not patentably distinct from each other because both teach a friction stir welding method for welding a first and second member comprising first and second members with recesses and projections which are overlapped and a third plate (rib) wherein the rotary tool is positioned within a range of an extension line of a thickness of the third plate (rib) (instant claims 1-4, 8 and 9, '474 claims 8-10). Although the angle of the rib is not

disclosed, it noted that this does not change the welding method or disposition of the tool. Multiple tools are used simultaneously (instant claims 6 and 11 and '474 claims 6 and 7) and members are mounted on a bed (instant claim 7 and '474 claim 11).

4. Claims 1-5, 8-10, 12 and 13 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 3-7, 13-17 and 26-29 of U.S. Patent No. 6050474. Although the conflicting claims are not identical, they are not patentably distinct from each other because both teach a friction stir welding method for welding a first and second member comprising first and second members with recesses and projections which are overlapped and a third plate (orthogonal rib in '264 claims) wherein the rotary tool is positioned within a range of an extension line of a thickness of the third plate (instant claims 1-5 and 8-10 and '264 claims 3-6). Although the angle of the rib is not disclosed, it noted that this does not change the welding method or disposition of the tool. The instant structure of claim 12 is taught in '264 claims 26-29. The instant structure of claim 13 is taught in '264 claims 7 and 13-17. It is noted that a similar structure can be formed by MIG or TIG welding.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Aota et al. (USPN 6613447 B2, structure), Kawasaki et al. (US 2002/0119336 A1, structure), Ezumi et al. (USPN 6494011, structure), Ezumi et al.

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(USPN 6474533, structure and method), Aota et al. (USPN 6619534 B2, method), Ezumi et al. (USPN 6193137 B1), Forrest et al. (USPN 6398883 B1, simultaneous welding), and Thomas et al. (USPN 5460317, simultaneous welding, IDS).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynne Edmondson whose telephone number is (703) 306-5699. The examiner can normally be reached on Monday through Thursday from 6:30 a.m. to 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (703) 308-3318. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

Lynne Edmondson  
Examiner  
Art Unit 1725

 11/12/05

LRE